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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,233	08/22/2003	Christopher M. Paterson	20501/524	1380
32847 7590 10/18/2007 THE OLLILA LAW GROUP LLC 2060 BROADWAY SUITE 300 BOULDER, CO 80302			EXAMINER GRAHAM, GARY K	
			ART UNIT 3723	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/646,233

Applicant(s)

PATERSON ET AL.

Examiner

Gary K. Graham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-21 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) 7, 9-14, 21 and 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 6, 15-17 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Krasznai et al (US patent 4,912,805) in view of Stubbs (GB patent 2,041,741).

The patent to Krasznai discloses the invention, a vacuum cleaner brushroll, substantially as is claimed. Krasznai discloses (see figs. 3,4) a brushroll body (65) with at least one row (76) of bristle tufts. The row of tufts is comprised of both short, stiff bristle tufts (70b) and long, flexible bristle tufts (70a). The short tufts have fewer bristles than the long tufts (col.2, lines 1+). The tufts have different diameters (col. 5, lines 40+).

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The patent to Krasznai discloses all of the above recited subject matter with the exception of the different tufts (short, long) being at first and second angles with respect to a radius direction of the brushroll body.

The patent to Stubbs discloses angling of bristle tufts (2, figs.3,4a) with respect to a radius direction of the brushroll body (3). Such angling is to increase the dust collecting property of the brush by causing a flick action of the tufts. Stubbs sets forth that the angle chosen is in the range of 1-6 degrees and is determined by bristle material and tuft length. Thus tufts of different lengths will have different angles.

It would have been obvious to one of skill in the art to angle the tufts of Krasznai, as clearly suggested by Stubbs, to increase the dust collecting property of the brush by causing a flick action of the tufts. Angling of the tufts of Krasznai will result in all the tufts being angled with respect to the brushroll body. **Further**, as Krasznai discloses tufts of differing lengths, such will have differing angles, as suggested by Stubbs, such that they achieve the proper flick action.

Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasznai et al (US patent 4,912,805) in view of Stubbs (GB patent 2,041,741), as applied to claims 1 and 15 above, and further in view of Taylor (US patent 2,459,007).

The patents to Krasznai and Stubbs disclose all of the above recited subject matter with the exception of the different length tufts being made of different material.

The patent to Taylor discloses a vacuum brush roll (fig.2) with both long, flexible tufts (19) and short, stiff tufts (18). Taylor discloses that differences in tuft flexibility can be achieved with different diameter bristles and/or different materials (see col. 2, lines 53+).

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It would have been obvious to one of skill in the art to use different material to achieve the differences in flexibility for the bristles of Krasznai instead of or in addition to the different diameter bristles, as clearly suggested by Taylor, to enable increased control of the flexibility of the bristles. Such would also enable same size tufts to be used for both tufts thus providing a uniform row of tufts.

Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasznai et al (US patent 4,912,805) in view of Stubbs (GB patent 2,041,741), as applied to claims 1 and 15 and further in view of Newman (US patent 3,188,673).

The patents to Krasznai and Stubbs disclose all of the above recited subject matter with the exception of different length tufts being of different colors.

The patent to Newman discloses a brush wherein different length tufts are of different colors.

It would have been obvious to one of skill in the art to make the different length tufts of different colors, as clearly suggested by Newman, to enable increased awareness of the different length tufts. Further, merely coloring different components of a structure different colors appears entirely obvious as a purely ascetic change.

### ***Response to Arguments***

Applicant's arguments filed 08 August 2007 have been fully considered but they are not persuasive.

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Applicant argues that Krasznai does not individually disclose the invention as claimed.

Applicant argues that Krasznai does not disclose even a single angled bristle tuft. While such is true, Krasznai is not relied upon to show such. Krasznai is not relied upon by itself. Applicant's arguments against the references individually are not persuasive as one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's argument that Stubbs does not disclose a row of bristle tufts including first and second tufts with a first tuft oriented at a first angle and a second tuft oriented at a second angle that is different from the first is noted but not persuasive. Applicant further argues that in Stubbs, all of the tufts of each row (2) are angled and that the teaching of angling an entire row of tufts in Stubbs does not teach the angling of individual tufts of a row with a first tuft at a first angle and a second tuft at a second angle. As set forth in the rejection, Stubbs suggests that tufts of differing lengths will have differing angles to achieve the proper flick action. Applicant has agreed with this statement. Employing such in the brush of Krasznai, **which has different height tufts within each row**, would result in the different height tufts having different angles as claimed. Stubbs shows each row with all tufts having a common angle, **however**, the height of the tufts in each row is the same. Thus they would have the same angle. Such is not the case in Krasznai where the height of the different tufts within each row varies between short tufts (70b) and long tufts (70a). If the angle of the tufts were the same for Krasznai, when modified as suggested by Stubbs, proper flick action would not be achieved. Is applicant suggesting that the different height tufts would all be at the same angle? Such goes against what is suggested by Stubbs to achieve proper flick angle.

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Applicant argues that what Stubbs actually discloses is that the angle of a row of tufts can be varied, and can be varied according to the length of a row of tufts. Such is not persuasive. It is not clear where Stubbs discloses that angling the tufts is according to the length of a row of tufts. Such does not appear accurate. Stubbs clearly sets forth in his specification, lines 15-16, that the angle is determined by the bristle material length of the tufts. Such is not directed to the length of a row of tufts.

Applicant argues that Stubbs teaches a flicking action with respect to the “ground”, which is implicitly a solid, smooth, level floor surface while the tufts of Krasznai are for contacting carpeting. Applicant states that a flicking action would not work in the brushroll of Krasznai and would not provide any benefit to Krasznai. Such is not persuasive. Applicant is directed to the specification of Stubbs, in particular lines 3-5, where he states that the invention is directed to rotary brushes of **carpet** sweepers. Thus the “ground” of Stubbs is not implicitly a smooth surface as suggested by applicant, but is in fact carpet.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

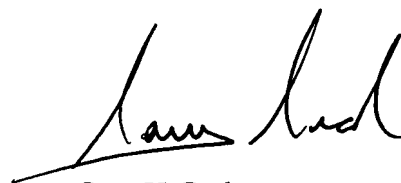
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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary K. Graham whose telephone number is 571-272-1274. The examiner can normally be reached on Tuesday to Friday (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Gary K. Graham', is written over a horizontal line.

Gary K Graham  
Primary Examiner  
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